

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-8 (Cancelled)

Claim 9 (Previously Presented): A method for making a fermentation product comprising:

immobilizing a non-flocculent yeast in a bioreactor,
contacting a fermentation liquid with the immobilized non-flocculent yeast for a time and under conditions suitable for fermentation, and

recovering the fermentation product(s),

wherein said non-flocculent yeast is immobilized on a carrier selected from the group consisting of a chitosan bead, alginic acid and carrageenan and

wherein said non-flocculent yeast satisfies the following:

a suspension of 0.6 g of said yeast is mixed with 20 ml of water,

1 ml of 0.5 M acetic acid buffer solution at pH 4.5 including 1,500 ppm calcium ion is added to 9 ml of said suspension,

the resulting mixture is left to stand still for 5 minutes at room temperature, and neither flocculation nor sedimentation of said yeast is observed.

Claim 10 (Previously Presented): The method of Claim 9, wherein said non-flocculent yeast is immobilized on a chitosan bead.

Claim 11 (Previously Presented): The method of Claim 9, wherein said non-flocculent yeast is immobilized on alginic acid.

Claim 12 (Previously Presented): The method of Claim 9, wherein said non-flocculent yeast is immobilized on carrageenan.

Claim 13 (Previously Presented): The method of Claim 9, further comprising subjecting the fermentation products to a secondary fermentation.

Claim 14 (Previously Presented): The method of Claim 9, wherein said non-flocculent yeast is a liquor yeast.

Claim 15 (Previously Presented): The method of Claim 9, wherein said non-flocculent yeast is a beer yeast.

Claim 16 (Previously Presented): The method of Claim 9, wherein said non-flocculent yeast is *Saccharomyces cerevisiae*.

Claim 17 (Previously Presented): The method of Claim 9, wherein said non-flocculent yeast is *Saccharomyces uvarum*.

Claim 18 (Previously Presented): The method of Claim 9, wherein said bioreactor comprises a complete mixed vessel reactor.

Claim 19 (Previously Presented): The method of Claim 9, wherein said bioreactor comprises a packed bed reactor.

Claim 20 (Previously Presented): The method of Claim 9, wherein said bioreactor comprises a film reactor.

Claim 21 (Previously Presented): The method of Claim 9, wherein said bioreactor comprises a fluidized bed reactor.

Claim 22 (Previously Presented): The method of Claim 9, wherein said bioreactor comprises a lateral reactor.

Claim 23 (Previously Presented): The method of Claim 9, wherein said fermentation liquid comprises malt.

Claim 24 (Previously Presented): The method of Claim 9, wherein said fermentation liquid comprises a fruit juice.

Claim 25 (Previously Presented): The method of Claim 9, wherein said fermentation liquid comprises a sugar liquid.

Claim 26 (Previously Presented): The method of Claim 9, wherein said fermentation liquid comprises a cereal saccharified liquid.

Claim 27 (Previously Presented): The method of Claim 9, wherein said fermented product is beer.

Claim 28 (Previously Presented): The method of Claim 9, wherein said fermented product is a malt alcohol beverage.

Claim 29 (Previously Presented): The method of Claim 9, wherein said fermented product is sake.

Claim 30 (Previously Presented): The method of Claim 9, wherein said fermented product is wine.

Claim 31 (Previously Presented): The method of Claim 9, wherein said fermented product is vinegar.

Claim 32 (Previously Presented): The method of Claim 9, wherein said fermented product is soy sauce.

Claim 33 (Previously Presented): A fermentation method comprising:
immobilizing a non-flocculent yeast on an immobilizing carrier within a bioreactor having a fluidized bed section,
supplying the bioreactor with a fermentation liquid,
extracting a part of the fermentation liquid from the downstream side of the fluidized bed section and returning the part of the fermentation liquid to the upstream side of the fluidized bed section, while forming a fluidized bed to carry out the fermentation of the fermentation liquid; and
recovering the thus obtained fermentation product from the bioreactor and

optionally supplying the bioreactor with a new fermentation liquid to repeat the fermentation,

wherein said non-flocculent yeast satisfies the following:

a suspension of 0.6 g of said yeast is mixed with 20 ml of water,

1 ml of 0.5 M acetic acid buffer solution at pH 4.5 including 1,500 ppm calcium ion is added to 9 ml of said suspension,

the resulting mixture is left to stand still for 5 minutes at room temperature, and neither flocculation nor sedimentation of said yeast is observed.

Claim 34 (Previously Presented): The method of Claim 33, wherein said non-flocculent yeast is immobilized on a carrier selected from the group consisting of a chitosan bead, alginic acid and carrageenan.

Claim 35 (Previously Presented): The method of Claim 33, wherein the immobilizing carrier is a chitosan bead.

Claim 36 (Previously Presented): The method of Claim 33, wherein the non-flocculent yeast is a non-flocculent liquor yeast and the fermentation product is a liquor.

Claim 37 (Previously Presented): The method of Claim 33, wherein the non-flocculent yeast is a non-flocculent beer yeast and the fermentation product is a malt alcohol beverage.

Claim 38 (Previously Presented): A method for making a fermentation product comprising:

immobilizing a non-flocculent yeast in a fluidized bed bioreactor on the surface of a chitosan bead,

contacting a fermentation liquid with the immobilized non-flocculent yeast for a time and under conditions suitable for fermentation,

recovering the primary fermentation product(s),

wherein the primary fermentation product(s) have a higher number of floating yeast cells than the primary fermentation product(s) obtained using a similar flocculent yeast of the same species, and

wherein said non-flocculent yeast satisfies the following:

a suspension of 0.6 g of said yeast is mixed with 20 ml of water,

1 ml of 0.5 M acetic acid buffer solution at pH 4.5 including 1,500 ppm calcium ion is added to 9 ml of said suspension,

the resulting mixture is left to stand still for 5 minutes at room temperature, and

neither flocculation nor sedimentation of said yeast is observed.